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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,381

08/27/2003

Robert L. Heberling

200311803-1

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7590

12/16/2004

HEWLETT PACKARD COMPANY
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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

STEPHENS, JUANITA DIONNE

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,381

Applicant(s)

HEBERLING ET AL.

Examiner

Juanita D. Stephens

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2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed 8/27/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8-11,13,14 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 2,5-7,12 and 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/27/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
On page 4, paragraph [13], line 11 replace "flex cable 24" with --flex cable 26--.
On page 4, paragraph [13], line 15 replace "flex cable 24" with --flex cable 26--.
On page 4, paragraph [14], line 1 replace "flex cable 24" with --flex cable 26--.
Appropriate correction is required.

Claim Objections

2. Claim 4 is objected to because of the following informalities:
In claim 4, line 1 replace "Claim 1" with --Claim 3--. The recitation of "predetermined intercept orientation" was previously recited in claim 3, not claim 1.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-4, 8-11, 13-14, 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (US 5,971,525).

Inoue et al. discloses an inkjet printer (recording apparatus 401 as shown in Fig. 11) comprising: 1) a frame (as shown in Fig. 1), 2) a carriage (carriage unit 405/carriage 450) configured to removably receive and support at least one pen (head

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407) (col 9, Ins 19-21), 3) means for supporting and laterally reciprocating the carriage on the frame (col 9, Ins 20-29), 4) driver electronics for the pen (contact unit 478), 5) means (sheet feed unit 403) for propelling a sheet of media longitudinally past the pen (col 8 lines 39-41; col 9, Ins 34-43), 5) a flex cable (flexible base board 456) mounted in the carriage for providing an electrical connection between the driver electronics and the pen when the pen is fully inserted into the carriage and including at least one extended portion (deelectrifying member 564) the intercepts the pen during an initial phase of insertion into the carriage to shunt electrostatic discharge (ESD) from the pen to ground before the extended portion folds to allow the pen to be fully inserted into the carriage (col 8, Ins 35-38; col 12, Ins 3-9, Ins 12-17 and Ins 32-44, 6) wherein the extended portion is constructed and configured so the extended portion initially remains in a predetermined free floating intercept orientation and will thereafter fold to a retracted orientation as the pen is progressively inserted into the carriage (col 12, Ins 35-35 as shown in Figs. 23A-23C), 7) wherein the extended portion is constructed and configured so that upon removal of the pen from the carriage the extended portion will spring back to the predetermined intercept orientation (as shown in Figs. 23A-23C), 8) wherein the extended portion (pressure board 23) is secured to a sidewall of the carriage and has an exposed conductive pad (204A) that makes electrical contact with the pen upon insertion of the pen into the carriage (col 5, Ins 26-41 as shown in Fig. 3), 9) wherein the driver electronics are provided by a printed circuit assembly (PCA) selected from the group consisting of a carriage PCA (561) and a main PCA (as shown in Fig. 21), 10) wherein the flex cable (flexible base board 456) is made of a plastic film substrate with

conductive traces formed thereon (col 12, lns 9-11), and 11) wherein the driver electronics (contact unit 561) are carried by the carriage (as shown in Fig. 21).

Allowable Subject Matter

5. Claims 2, 5-7, 12, and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 will be allowed when claim 5 is rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 16 will be allowed when claim 15 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

The limitation of wherein the carriage is configured to support a pair of pens in side-by-side relation and the flex cable in the carriage has a pair of extended portions on opposite sides thereof for each contacting a corresponding one of the pens during insertion into the carriage and shunting ESD to ground, recited in claims 2 and 12. This invention solves the problem of preventing ESD from damaging or destroying any sensitive electronic components on the carriage PCA.

The limitation of wherein the extended portion has a conductive trace with a portion exposed and positioned for contacting the pen when the pen is inserted into the housing, recited in claims 5 and 15. This invention solves the problem of preventing

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ESD from damaging or destroying any sensitive electronic components on the carriage PCA.

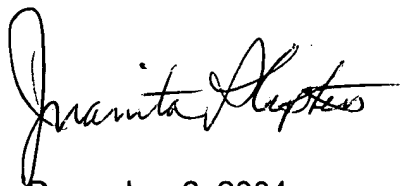
The limitation of wherein the extended portion is configured as a generally C-shaped loop with an open region that surrounds a plurality of conductive dimples on the flex cable, recited in claims 7 and 17. This invention solves the problem of preventing ESD from damaging or destroying any sensitive electronic components on the carriage PCA.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juanita D. Stephens whose telephone number is (571) 272-2153. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, appearing to read "Juanita Stephens", written in black ink.

December 6, 2004

Juanita D. Stephens
Primary Examiner
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